

## Infrastructure - Story #3056

### Add instrumentation to the CNs for realtime monitoring

2012-07-09 20:22 - Dave Vieglais

<b>Status:</b>	Closed	<b>Start date:</b>	2012-10-05
<b>Priority:</b>	Normal	<b>Due date:</b>	2013-09-07
<b>Assignee:</b>	Dave Vieglais	<b>% Done:</b>	100%
<b>Category:</b>	d1_monitor	<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>	2013.35-Block.5.1		
<b>Story Points:</b>			

#### Description

Diagnostics on the CNs requires a lot of log grepping, and watching balances between processes is for the most part quite challenging.

The goal of this story is to implement lightweight, configurable instrumentation options to key processes operating on the coordinating nodes so that the state of various services can be visualized in near real time. This is different to the capability offered Nagios which will continue to offer monitoring and alert services.

Instrumentation will take the form of Ganglia [1] for the real time recording and history display, and JMXetric [2] for instrumentation. Ganglia will be run on monitor.dataone.org.

JMXetric offers several choices for instrumentation that should be easily integrated into our current environment without being invasive. When properly setup, annotations can be used to indicate methods that should be timed for example.

[1] <http://ganglia.sourceforge.net/>

[2] <http://code.google.com/p/jmxetric/>

#### Subtasks:

Task # 3299: Add statsd start/stop to init.d and set to start on boot	Closed
Task # 3300: Add apache configuration for graphite service	Closed
Task # 3302: Add new domain name "statsd.dataone.org"	Closed
Task # 3303: Create a nagios entry for statsd.dataone.org	Closed
Task # 3329: Document use of statsd and graphite	Closed
Task # 3301: Restrict statsd access to expected hosts only	Closed

#### History

##### #1 - 2012-08-31 13:53 - Dave Vieglais

- Position set to 1

- Target version changed from Sprint-2012.33-Block.5.1 to Sprint-2012.37-Block.5.3

##### #2 - 2012-10-05 16:44 - Dave Vieglais

- Due date set to 2012-10-27

- Target version changed from Sprint-2012.37-Block.5.3 to Sprint-2012.41-Block.6.1

- translation missing: en.field\_remaining\_hours set to 0.0

##### #3 - 2012-10-05 16:47 - Dave Vieglais

- Status changed from New to In Progress

Using StatsD and Graphite, installing as new VM running on the KU Host hardware.

ip is 129.237.201.114

Sending new metrics for reporting is very simple using UDP. Example in bash:

```
#!/bin/bash
host="{STATSD_HOST:-129.237.201.114}"
```

```
port="${STATSD_PORT:-8125}"
```

```
if [ $# -ne 1 ]  
then  
echo "Syntax: $0 ""  
exit 1  
fi
```

## Setup UDP socket with statsd server

```
exec 3<> /dev/udp/$host/$port
```

## Send data

```
printf "$1" >&3
```

## Close UDP socket

```
exec 3<&-  
exec 3>&-
```

### #4 - 2012-12-12 16:53 - Chris Jones

- Target version changed from *Sprint-2012.41-Block.6.1* to *Sprint-2012.50-Block.6.4*
- Due date changed from *2012-10-27* to *2013-01-05*

### #5 - 2012-12-12 18:54 - Dave Vieglais

- Due date changed from *2013-01-05* to *2013-01-19*
- Target version changed from *Sprint-2012.50-Block.6.4* to *2013.2-Block.1.1*

### #6 - 2013-01-08 18:26 - Chris Jones

Housekeeping: Moving out of 1.1, into 1.1.1.

### #7 - 2013-01-08 18:26 - Chris Jones

- Milestone changed from *CCI-1.1* to *CCI-1.1.1*

### #8 - 2013-03-01 18:47 - Chris Jones

- Due date changed from *2013-01-19* to *2013-03-16*
- Target version changed from *2013.2-Block.1.1* to *2013.10-Block.2.1*

### #9 - 2013-08-02 11:54 - Dave Vieglais

- Target version changed from 2013.10-Block.2.1 to 2013.35-Block.5.1
- Due date changed from 2013-03-16 to 2013-09-07

**#10 - 2014-01-06 18:07 - Dave Vieglais**

- Product Version set to \*
- Status changed from In Progress to Closed